

REMARKS

Reconsideration of the present application is requested. Claims 1-23 are currently pending, with claims 1, 8 and 15 being independent and currently amended.

ALLOWABLE SUBJECT MATTER

Applicant acknowledges the Examiner's allowance of claims 22 and 23, and the Examiner's indication that claims 7 and 10 contain allowable subject matter.

PRIOR ART REJECTIONS

REJECTION UNDER 35 U.S.C. §103(a)

Claims 1-6 and 15-21 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 4,952,498 ("Waters") and U.S. Patent No. 6,001,687 ("Zurcher"). This rejection is respectfully traversed, especially in view of claims 1, 8 and 15 as now amended.

I. THE REJECTION OF CLAIMS 1-6 AND 15-21 SHOULD BE WITHDRAWN BECAUSE WATERS AND ZURCHER, TAKEN IN COMBINATION, FAIL TO RENDER CLAIMS 1, 8 OR 15 OBVIOUS.

A. THE COMBINATION OF ZURCHER AND WATERS FAILS TO RENDER CLAIM 1 OBVIOUS BECAUSE NEITHER REFERENCE TEACHES OR FAIRLY SUGGESTS A "MOVABLE PLUNGER" IN "ABUTTING CONTACT WITH A PORTION OF THE DIAPHRAGM THROUGH WHICH THE INNER VOLUME OF THE REACTION VESSEL IS ACCESSIBLE." AS REQUIRED BY CLAIM 1.

The Examiner correctly recognizes that *Waters* fails to teach or fairly suggest at least a "self-sealing diaphragm," as set forth in claim 1. *Non-Final Office Action*, p. 3 (May 31, 2006). The Examiner relies on *Zurcher* to allegedly teach this feature. However, even taken in combination (assuming *arguendo*

that *Zurcher* could be combined with *Waters* which Applicant does not admit), the teachings of *Waters* and *Zurcher* fail to render claim 1 obvious because the combination fails to teach or fairly suggest a "movable plunger" in "abutting contact with a portion of the diaphragm through which the inner volume of the reaction vessel is accessible," as required by claim 1.

The seal mechanism of claim 1 includes a movable plunger cooperating with a self-sealing diaphragm. The plunger is reversibly operable between a retracted position in which the inner volume of the reaction vessel is accessible through the diaphragm and an operational position at which the plunger is in abutting contact with the diaphragm.

In the operational position, the movable plunger is in abutting contact with a portion of the diaphragm through which the inner volume of the reaction vessel is accessible. In other words, **the portion of the diaphragm in abutting contact with the movable plunger in the operational position is the same portion of the diaphragm through which the inner volume of the reaction vessel is accessible when the movable plunger is in the retracted position.**

By contrast, in *Waters*, the portion of the diaphragm through which the inner volume of the reaction vessel is accessible (i.e., the portion of the diaphragm accessible through opening 22 in FIGS. 1 and 2) is separate and different from the portion of the diaphragm in abutting contact with the plunger 58. Therefore, even if one of ordinary skill in the relevant art would have been motivated to combine *Zurcher* with *Waters* (which Applicant does not

admit), the combination still fails to render claim 1 obvious because in the resultant combination the portion of the diaphragm in abutting contact with the plunger would still be different from the portion of the diaphragm through which the reaction vessel is accessible.

B. THE TEACHINGS OF WATERS AND ZURCHER ARE NOT SUFFICIENT TO RENDER THE SEALING MECHANISM OF CLAIM 1 OBVIOUS BECAUSE THE PROPOSED MODIFICATION OF WATERS TO INCLUDE A SELF-SEALING DAIPHRAGM WOULD CHANGE THE PRINCIPAL OPERATION OF WATERS.

As the Examiner will appreciate, in *Waters* the vessel is accessible through opening 22, which is separate and different from the location of the plunger 58. FIG. 5. Thus, in order to arrive at the seal mechanism of claim 1, the plunger 58 of *Waters* would need to be relocated or removed. However, relocating and/or removing the plunger 58 would change the principal operation of *Waters* in that the plunger 58 would no longer operate as a mechanical indicator. *Waters*, col. 5, ll. 61-68. Because this proposed modification would change the principal operation of *Waters*, the teachings of *Waters* and *Zurcher* are not sufficient to render the device of claim 1 obvious.

In re Ratti, 270 F.2d 810 (CCPA 1959); MPEP § 2143.02(VI).

Moreover, if the Examiner believes one of ordinary skill in the relevant art would have been motivated to remove or relocate the plunger 58 of *Waters* (which Applicant asserts would not have been the case), then Applicant requests the Examiner provide sufficient evidence as to why one of ordinary skill in the art would have been motivated to do so. Applicant requests that the Examiner consider that the fact that a reference can be modified in a particular

way does not render the resultant device obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); MPEP § 2143.01(III).

For at least the foregoing reasons, the rejection of claim 1, and dependent claims 2-7 and 21, should be withdrawn.

C. THE REJECTION OF CLAIM 15 SHOULD BE WITHDRAWN FOR AT LEAST REASONS SOMEWHAT SIMILAR TO THOSE SET FORTH ABOVE WITH REGARD TO CLAIM 1.

Claim 15 is directed to a method for confining a chemical reaction in a reaction vessel that is accessible through a self-sealing diaphragm covering an opening of the reaction vessel. In claim 15, a controllable counter pressure is applied to an external side of the diaphragm that counteracts an outward deflection of the diaphragm caused by an increase of internal pressure in the vessel. The external side of the diaphragm is the same portion of the diaphragm through which reagents are injected/extracted. Therefore, independent claim 15 and dependent claims 16-18 are also in condition for allowance for at least reasons somewhat similar to those set forth above with regard to claim 1.

FURTHER PRIOR ART REJECTIONS

The Examiner further rejects claims 8-9 and 11-14 as allegedly being unpatentable over *Waters, Zurcher* and U.S. Patent No. 5,382,414 ("*Lautenschlager*") under 35 U.S.C. §103(a). Applicant respectfully traverses this rejection, **especially in view of claim 8 as now amended.**

I. THE REJECTION OF CLAIM 8 SHOULD BE WITHDRAWN FOR AT LEAST REASONS SOMEWHAT SIMILAR TO THOSE SET FORTH ABOVE WITH REGARD TO CLAIM 1.

Claim 8 is directed to an apparatus for performing chemical reactions. In the apparatus of claim 8, a movable plunger cooperates with one or more reaction vessels in the microwave exposure position, and is reversibly operable between a retracted position and an operational position. In the retracted position, an inner volume of the vessel is accessible through the diaphragm, and the operational position in abutting contact with the self sealing diaphragm. In the operational position, the movable plunger is in abutting contact with a portion of the diaphragm through which the inner volume of the reaction vessel is accessible. Therefore, independent claim 8 and dependent claim 9 are also in condition for allowance for at least reasons somewhat similar to those set forth above with regard to claim 1.

The Examiner correctly recognizes that neither *Waters* nor *Zurcher* teaches at least "one or more reaction vessels supported and successively movable to a position for microwave energy exposure," as set forth in claim 8. *Office Action* at 4. The Examiner relies upon *Lautenschlager* to allegedly teach this feature. *Id.* However, even assuming *arguendo* that *Lautenschlager* could be combined with *Waters* and/or *Zurcher* (which Applicant does not admit), *Lautenschlager* still fails to at least make up for the deficiencies of *Waters* and/or *Zurcher*, as discussed above, with regard to claim 8. Accordingly, claim 8 is in condition for allowance. Dependent claims 9 and 11-14 are also allowable at least by their virtue of their dependency from claim 8.

CONCLUSION

In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

Pursuant to 37 C.F.R. 1.17 and 1.136(a), the Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application, and the required fee of \$120.00 is attached.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Andrew M. Waxman, Reg. No. 56,007, at the number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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